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December 13, 1999

415 Wall Street
Elmira, NY 14905

FDA Commissioner Jane Henney
5600 Fishers Lane
Rockville, MD 20857

RE: Docket No. 99N-4282

Dear Commissioner Henney:

I am writing about the call for public comment on bioengineered food (Docket No. 99N-4282.) I absolutely feel it is necessary that these foods be labeled and that pre-market safety testing be done.

The reason for my opinion is that I want to be able to avoid these foods and I am concerned that at present I have no choice.

I am also concerned about the health and environmental risks that these foods pose. I am enclosing data compiled by the Friends of the Earth that summerizes these risks as well as specific material on the need for labeling. I would so appreciate if you could address each of these issues and inform me as to why I have no way of choosing not to consume bioengineered food to protect my health as I see it and to protect the environment, also as I see it.

I thank you for allowing this process of public comment and pray that you can withstand the giant corporations who have apparently have such influence over the private citizen's health, economy and environment.

Sincerely,

Alice B. Bartholomew

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Enclosure

99N-4282

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Environmental Risks associated with GE Foods

Bio-pollution

Releasing gene altered seeds and crops into the environment raises the specter of "biological pollution," a new form of environmental pollution that promises to be just as hazardous to the environment as chemical pollution. Biological pollution is caused by living organisms that grow, disperse, reproduce and mutate. Such organisms don't respect field boundaries or national borders and once released into the environment, they cannot be contained. "mopped up."

Chemical Dependence

Almost two-thirds of genetically engineered crops growing on a commercial basis in the United States have been modified to tolerate certain proprietary herbicides. Crops such as corn, soy and canola have been genetically altered to withstand otherwise lethal doses of chemical pesticides. Farmers, therefore, can douse their fields with herbicides without having to worry about killing their crops.

Herbicide Resistant crops belie the claims of the biotechnology industry that genetic engineering will foster environmental protection. Far from reducing pesticide use, the crops encourage pesticide use – a boon for pesticide manufacturers many of whom are initiating the "gene revolution" – but a kiss of death for our groundwater and drinking water supplies that are already contaminated with agricultural chemicals.

Genetic Drift: Superweeds

Scientists fear that herbicide resistant crops could cross breed with wild weedy relatives creating "superweeds" that will be difficult and expensive for farmers to eradicate. Such species could have survival advantages such as herbicide tolerance and could displace existing species of plants, destroying local eco-systems and threatening bio-diversity.

Novel genes in crops can move via pollen to wild relatives growing near the field. Studies conducted in Britain have shown that pollen can travel up to several miles, indicating that genetically engineered crops in one field could easily contaminate crops in another field.

Herbicide resistant crops, themselves, may also become weeds if they occur in places where humans don't want them. We already have examples of the consequences of intentionally introducing non-native plants into the environment. Kudzu and Johnson grass, for example, were both introduced into the United States and today have become serious weeds.

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In addition to problems with weeds, studies are now showing that the indiscriminate use of certain pesticides harms non-targeted wildlife, such as beneficial insects and even birds and small mammals.

Insect Resistant Crops:

After herbicide resistance, the second most common application of genetic engineering has been to create "insect resistant" crops. Scientists have inserted into corn, canola and potatoes genes that make the plants poisonous to insects. The "toxic" genes are from bacteria found in soil and the toxins are called *Bacillus thuringiensis* (B.t.). Proponents of genetic engineering argue that B.t. crops will reduce the need for insecticides and so protect the environment, but in fact insect resistant crops have profound negative implications for the environment.

Effects on non-target organisms:

The Bt gene that occurs naturally in soil bacterium produces a protoxin which, when eaten by some insects, reacts with their stomach juices to destroy their digestive tracts and kills them. By contrast, the substances produced by the genetically altered plants do not need to be activated by insect stomach fluids, but are immediately toxic. They can survive in the soil for up to 9 months and kill beneficial insects, such as aphids, as well as the targeted pests. Earlier this year, scientists at Cornell University revealed that pollen from genetically engineered B.t. corn could be killing the Monarch butterfly. The findings of the lab study have since been confirmed in an ongoing field study at Iowa State University.

A Threat to Organic Agriculture

B.t. crops also have implications for organic agriculture. Organic farmers have long used the B.t. toxin in a natural spray as a component of an integrated pest management scheme. The spray targets specific pests and is non-toxic to mammals. However, plants that continually produce the B.t. insecticide will create strong selection pressure on insects to develop resistance to the insecticide. As insects evolve resistance to B.t. toxins, organic farmers will be stripped of one of their most valuable tools.

Bt crops may also affect beneficial predator insects such as lacewings and ladybirds if they eat insects that have been feeding on genetically engineered plants.



The Need for Labeling of Genetically Engineered Foods

Over the last few years, a variety of genetically engineered (GE) foods, including corn, soybeans, and tomatoes, has been introduced into supermarkets in the United States. For a variety of reasons, many consumers in the U.S. prefer not to eat GE food. Consumers are concerned about the religious, ethical, environmental, economic and health implications of GE foods.

Surveys show widespread support for mandatory labeling. In February of this year *Time* magazine reported that 81% of Americans surveyed wanted genetically engineered food to be labeled as such. The demand for labeling of GE food is consistent with Americans' growing concern about food safety. Such concerns are reflected in the boom in sales of organic foods. Last year, the USDA received some 275,000 public comments in response to its proposed organic standards that would have included genetic engineering under an "organic" label. The majority of comments were opposed to allowing foods labeled as organic to contain GE ingredients.

Strong support for labeling of GE foods exists among the major trading partners of the United States, including the European Union and Japan. The EU presently requires all GE corn and soy products to be labeled and Japan plans to have a labeling scheme in place by next spring. Both Australia and New Zealand are also drafting labeling legislation.

Religious and Ethical Concerns: Many consumers believe that GE food crops are unethical and violate religious dietary laws, including kosher rules against hybridization. A coalition of groups including representatives of Jewish, Buddhist, Moslem and Christian denominations is presently suing the US FDA for failing to label GE foods. Similarly, vegetarians are concerned about ingesting animal DNA by eating for example fish genes that have been inserted into tomatoes. Britain's Prince Charles recently questioned GE foods, stating, "this kind of genetic modification takes mankind into the realms that belong to God, and God alone."

Environmental Concerns: Some consumers prefer not to buy GE foods, because they are concerned about potential adverse environmental impacts that could result from genetically engineering food crops. (See fact sheet on the Environmental implications of GE foods)

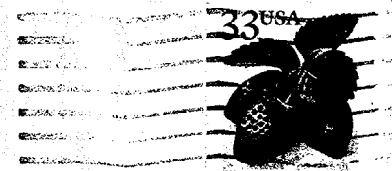
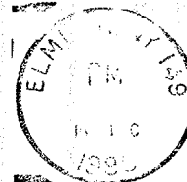
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Economic Concerns: Some consumers prefer not to purchase GE foods because they are concerned about the potential impact of genetic engineering upon the agricultural economy both within the US and overseas. Critics of the use of genetic engineering in food production contend that the high cost of GE seeds will force family farms in the US out of business and damage the economies of developing countries.

Health and Safety Concerns: Consumers are also concerned about potential health risks that could be associated with GE food. Potential health problems that could result from ingestion of GE foods include allergic reactions and antibiotic resistance. In 1996, Pioneer Hi-Bred International Inc. developed a GE soybean using a gene from a Brazil nut to increase the protein content of its animal feed. Independent tests on the genetically modified soybean revealed that people allergic to Brazil nuts reacted to the engineered soy.



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